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EXAMINER

AMINI, JAVID A

ART UNIT PAPER NUMBER

2672

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/524,698

Applicant(s)

TONISSON, ALAN

Examiner

Javid A Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33,37,43-68 and 123-128 (claims from group I) is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33,37,43-68 and 123-128 (claims from group I) is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

Election/Restrictions

Applicant's election without traverse in Paper No. 7 is acknowledged.

Elected group is "group I" (claims 1-33, 37, 43-68 and 123-125).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-33, 37, 43-68 and 123-128 are rejected under 35 U.S.C. 102(a) as being anticipated by Politis US patent 5,745,121.

1. Claim 1.

As per claim 1 line 5, "determining an expression for each of a plurality of active regions, each said active region being defined by at least one region outline following at least one of said predetermined outlines or parts thereof", Politis et al., thereafter Politis disclosed in (col. 4, lines 6-20) generating a series of instructions including opcodes from said expression tree.

As per claim 1 line 9, "determining expressions representing each of a plurality of effective regions depending on at least one characteristic of at least one active region, wherein each said effective region has a corresponding compositing operation", Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the code generation phase of a compiler.

As per claim 1 line 11, "applying said corresponding compositing operations substantially to said effective regions to create, said image", Politis disclosed in (col. 1, lines 17-37) that computer generated images are typically made up of many differing components or graphical elements which are "composited" or rendered

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together to create a final image. Politis disclosed in (Figs. 28 and 29) the series of instructions 98 and 87 (expressions representing the effective regions) are representing the effective region.

2. Claim 2,

As per claim 2, "wherein a further region is determined on the basis that a particular region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

3. Claim 3,

As per claim 3, "wherein an effective region is determined on the basis that a particular active region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

4. Claim 4,

As per claim 4, "wherein said further region is an effective region", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

5. Claim 5,

As per claim 5, "wherein said effective region is equal to the intersection of the clip and active regions of said particular corresponding compositing expression", Politis disclosed in (col. 9, lines 16-17) all those graphical elements of the linear render list that effect a currently to be rendered scan line.

6. Claim 6,

As per claim 6, "wherein said image is at least in part a pixel based image", Politis disclosed in (col. 5, lines 43-45) that pixel data such as scanned images or previously composed images which themselves form graphical elements.

7. Claim 7,

As per claim 7, “wherein a wholly opaque object in a particular region acts to eliminate one or more operations contributing to at least one other object constituting said particular region, wherein said at least one other object is obscured by said wholly opaque object in a space in which said outlines are defined”, Politis illustrated in Fig. 3-4.

8. Claim 8,

As per claim 8 line 5, “dividing a space in which said outlines are defined into a plurality of regions, each said region being defined by at least one region outline following at least one of said predetermined outlines or parts thereof”, Politis illustrated in Fig. 16-17 that the first portion of the image to be rendered in the above statements will be the graphical element corresponding to the letter T 20. This rendering will occur on a page 21 and will only occur in a predefined space or "bounding box" 22 which is the only portion of the scan converted portion of T which is to be laid down on the page 21. The next statement 7 combines the current page image with the graphical element corresponding to the letter E 24. Again, this letter by itself has a predetermined bounding box 25.

As per claim 8 line 8, “determining a plurality of further regions depending on at least one characteristic of at least one region, wherein each said further region has a corresponding compositing operation”, Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the code generation phase of a compiler.

As per claim 8 line 11, “mapping said further regions and corresponding compositing operations into a compositing table, comprising a plurality of levels, wherein each said level of said compositing table represents at least one operation for rendering an object or parts thereof or represents an outline for clipping at least one other level”, Politis disclosed in Fig. 23 that the compositing process for a portion of an expression tree 65. This portion of the expression tree 65 is compiled to the corresponding list of machine instructions 66 (col. 16,

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lines 9-42). And also Politis illustrated in Fig. 24 that the process of clipping rather than compositing when the right hand operand is an opaque object (col. 16, lines 9-42).

As per claim 8 line 15, "compositing said image using said compositing table", Politis illustrated in Table 1, (col. 2, line 10-57) that for compositing image using compositing table.

9. Claim 9.

As per claim 9, "wherein a further region is determined on the basis that a particular region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

10. Claim 10.

As per claim 10, "wherein an effective region is determined on the basis that a particular active region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

11. Claim 11.

As per claim 11, "wherein said further region is an effective region", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

12. Claim 12.

As per claim 12, "wherein said effective region is equal to the intersection of the further and active regions of said particular corresponding compositing expression", Politis disclosed in (col. 9, lines 16-17) all those graphical elements of the linear render list that effect a currently to be rendered scan line.

13. Claim 13.

As per claim 13, "wherein a level comprising a push operation is added to said compositing table", Politis illustrated in Figs. 28-29 a push operation is added to the table.

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14. Claim 14.

As per claim 14, “wherein a corresponding compositing expression of said further region is complex”, Politis disclosed the corresponding compositing expression further region is complex in (col. 20, lines 4-64).

15. Claim 15.

As per claim 15, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

16. Claim 16.

As per claim 16, “wherein a further region is determined on the basis that said corresponding compositing operation has a complex left operand”, Politis disclosed in (col. 15, lines 64-67 and col. 16, lines 1-5) and equation 1.

17. Claim 17.

As per claim 17, “wherein a level comprising a pop operation is added to said compositing table”, Politis illustrated in Fig. 23 that pop operation is added to the table.

18. Claims 18 and 19.

As per claim 18, “wherein said pop operation will remove any unused pixel being outside a further region representing said complex left operand, during compositing of said complex left operand”, Politis disclosed in Figs. 30-33 and in (col. 12, lines 21-45) The process of bounding box minimization is further designed to find the smallest area portion of each graphical element that is needed to make up the final image. Bounding box minimization extends to finding the smallest area of each internal node of the expression syntax tree to flyer minimizes the number of pixels to be composited.

19. Claim 20.

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As per claim 20, “wherein said further region is transformed to a still further region by said pop operation”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

20. Claim 21.

As per claim 21, “wherein said still further region is the effective region of said complex left operand”, Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

21. Claim 22.

As per claim 22, “wherein said still further region corresponds to a complex expression”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

22. Claim 23.

As per claim 23, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

23. Claim 24.

As per claim 24, “wherein a further region is determined on the basis that said corresponding compositing operation has a primitive left operand”, Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

24. Claim 25.

As per claim 25, “A method according to claim 9, wherein a level comprising an operation and a data fill value of a particular object constituting said further region, is added to said compositing table”, see rejections of 13,15 and 17.

25. Claim 26.

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As per claim 26, “wherein said further region corresponds to a complex expression”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

26. Claim 27.

As per claim 27, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

27. Claim 28.

As per claim 28, “wherein a level comprising a push operation is added to said compositing table”, Politis illustrated in Figs. 28-29 a push operation is added to the table.

28. Claim 29.

As per claim 29, “wherein said compositing table is optimized in regard to the number of pixel operations required to render said image”, Politis disclosed in Figs. 30-33 and in (col. 12, lines 21-45) The process of bounding box minimization is further designed to find the smallest area portion of each graphical element that is needed to make up the final image. Bounding box minimization extends to finding the smallest area of each internal node of the expression syntax tree to further minimizes the number of pixels to be composited.

29. Claim 30.

As per claim 30, “wherein a corresponding compositing expression is a hierarchically structured representation of a particular region represented by said corresponding compositing expression”, Politis disclosed in Figs. 28-29 a ruling that organized into orders or ranks each subordinate to the one above it.

30. Claim 31.

As per claim 31, “wherein said mapping comprises modifying a manner in which said corresponding compositing expression is evaluated without modifying said hierarchically structured representation”, Politis

disclosed in Figs. 28-29 a ruling that organized into orders or optimize without modifying hierarchically structured representation.

31. Claim 32.

As per claim 32, “wherein said image is at least in part a pixel based image”, the step is inherent because the display is combination of pixels therefore, the combination of pixel images is the image itself.

32. Claim 33.

As per claim 33, “wherein a wholly opaque object in a particular region acts to eliminate one or more operations contributing to at least one other object constituting said particular region, wherein said at least one other object is obscured by said wholly opaque object in a space in which said outlines are defined”, Politis illustrated in Fig. 3-4.

33. Claim 37.

As per claim 37, “A method of creating an image, said image to be formed by evaluating a hierarchically structured compositing expression representing said image, said hierarchically structured compositing expression consisting of a plurality of graphical objects and operations arranged as sub-expressions, each said object having a predetermined outline, said method comprising the steps of: determining an active region for each sub-expression of said hierarchically structured compositing expression, said active region being dependent on the predetermined outlines of each graphical object and operations contained in said each sub-expression; calculating an effective region for a corresponding compositing operation of said hierarchically structured compositing expression, depending on at least one characteristic of at least one active region; mapping each said effective region and corresponding operation into a compositing table, comprising a plurality of levels, wherein each said level of said compositing table represents at least one operation for rendering an object or part thereof constituting at least one of said effective regions; and evaluating said hierarchially structured compositing expression using said compositing table”, Politis illustrated in Fig. 16-17 that the first

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portion of the image to be rendered in the above statements will be the graphical element corresponding to the letter T 20. This rendering will occur on a page 21 and will only occur in a predefined space or "bounding box" 22 which is the only portion of the scan converted portion of T which is to be laid down on the page 21. The next statement 7 combines the current page image with the graphical element corresponding to the letter E 24. Again, this letter by itself has a predetermined bounding box 25. Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the code generation phase of a compiler. And also Politis disclosed in Fig. 23 that the compositing process for a portion of an expression tree 65. This portion of the expression tree 65 is compiled to the corresponding list of machine instructions 66 (col. 16, lines 9-42). Politis illustrated in Fig. 24 that the process of clipping rather than compositing when the right hand operand is an opaque object (col. 16, lines 9-42). Politis illustrated in Table 1, (col. 2, line 10-57) that for compositing image using compositing table.

34. Claim 43.

As per claim 43, "dividing a space in which said outlines are defined into a plurality of active regions, each said active region being defined by at least one region outline following at determining a plurality of effective regions depending on at least one characteristic of at least one active region, wherein each said effective region has a corresponding compositing operation; mapping said effective regions and corresponding compositing operations into a compositing table, comprising a plurality of levels, wherein each said level of said compositing table represents at least one operation for rendering an object or parts thereof; and compositing said image using said compositing table", Politis illustrated in Fig. 16-17 that the first portion of the image to be rendered in the above statements will be the graphical element corresponding to the letter T 20. This rendering will occur on a page 21 and will only occur in a predefined space or "bounding box" 22 which is the only portion of the scan converted portion of T which is to be laid down on the page 21. The next statement 7 combines the current page image with the graphical element corresponding to the letter E 24. Again, this letter

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by itself has a predetermined bounding box 25. Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the code generation phase of a compiler. And also Politis disclosed in Fig. 23 that the compositing process for a portion of an expression tree 65. This portion of the expression tree 65 is compiled to the corresponding list of machine instructions 66 (col. 16, lines 9-42). Politis illustrated in Fig. 24 that the process of clipping rather than compositing when the right hand operand is an opaque object (col. 16, lines 9-42). Politis illustrated in Table 1, (col. 2, line 10-57) that for compositing image using compositing table.

35. Claim 44.

As per claim 44, "wherein a further region is determined on the basis that a particular region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

36. Claim 45.

As per claim 45, "wherein an effective region is determined on the basis that a particular active region corresponds to a primitive expression", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

37. Claim 46.

As per claim 46, "wherein said further region is an effective region", Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

38. Claim 47.

As per claim 47, "wherein said effective region is equal to the intersection of the clip and active regions of said particular corresponding compositing expression", Politis disclosed in (col. 9, lines 16-17) all those graphical elements of the linear render list that effect a currently to be rendered scan line.

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39. Claim 48.

As per claim 48, “wherein a level comprising a push operation is added to said compositing table”, Politis illustrated in Figs. 28-29 a push operation is added to the table.

40. Claim 49.

As per claim 49, “wherein a corresponding compositing expression of said further region is complex”, Politis disclosed the corresponding compositing expression further region is complex in (col. 20, lines 4-64).

41. Claim 50.

As per claim 50, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

42. Claim 51.

As per claim 51, “wherein a further region is determined on the basis that said corresponding compositing operation has a complex left operand”, Politis disclosed in (col. 15, lines 64-67 and col. 16, lines 1-5) and equation 1.

43. Claim 52.

As per claim 52, “wherein a level comprising a pop operation is added to said compositing table”, Politis illustrated in Fig. 23 that pop operation is added to the table.

44. Claim 53.

As per claim 52, “wherein said pop operation will remove any unused pixel being outside a further region representing said complex left operand, during compositing of said complex left operand”, Politis disclosed in Figs. 30-33 and in (col. 12, lines 21-45) The process of bounding box minimization is further designed to find the smallest area portion of each graphical element that is needed to make up the final image. Bounding box minimization extends to finding the smallest area of each internal node of the expression syntax tree to flyer minimizes the number of pixels to be composited.

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45. Claim 54.

As per claim 54, “wherein said further region is the active region of said complex left operand”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

46. Claim 55.

As per claim 55, “wherein said further region is transformed to a still further region by said pop operation”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

47. Claim 56.

As per claim 56, “wherein said still further region is the effective region of said complex left operand”, Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

48. Claim 57.

As per claim 57, “wherein said still further region corresponds to a complex expression”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

49. Claim 58.

As per claim 58, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

50. Claim 59.

As per claim 59, “wherein a further region is determined on the basis that said corresponding compositing operation has a primitive left operand”, Politis disclosed in (col. 8 lines 34-42) that an "infix" or "expression based" approach where primitive graphical elements may be either operated on directly or stored in variables.

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51. Claim 60.

As per claim 60, “wherein a level comprising an operation and a data fill value of a particular object constituting said further region, is added to said compositing table”, see rejections of 13,15 and 17.

52. Claim 61.

As per claim 61, “wherein said further region corresponds to a complex expression”, Politis disclosed in (col. 10, lines 45-68) pop the graphical element currently on the top of the stack and use it as the operand to the instruction.

53. Claim 62.

As per 62, “wherein a level comprising a clip operation is added to said compositing table”, Politis disclosed in Fig. 24 the clip operation added to table.

54. Claim 63.

As per claim 63, “wherein a level comprising a push operation is added to said compositing table”, Politis illustrated in Figs. 28-29 a push operation is added to the table.

55. Claim 64.

As per claim 64, “wherein said compositing table is optimized in regard to the number of pixel operations required to render said image”, Politis disclosed in Figs. 30-33 and in (col. 12, lines 21-45) The process of bounding box minimization is further designed to find the smallest area portion of each graphical element that is needed to make up the final image. Bounding box minimization extends to finding the smallest area of each internal node of the expression syntax tree to flyer minimizes the number of pixels to be composited.

56. Claim 65.

As per claim 65, “wherein a corresponding compositing expression is a hierarchically structured representation of a particular region represented by said corresponding compositing expression”, Politis disclosed in Figs. 28-29 a ruling that organized into orders or ranks each subordinate to the one above it.

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57. Claim 66.

As per claim 66, “wherein said mapping comprises modifying a manner in which said corresponding compositing expression is evaluated without modifying said hierarchically structured representation”, Politis disclosed in Figs. 28-29 a ruling that organized into orders or optimize without modifying hierarchically structured representation.

58. Claim 67.

As per claim 67, “wherein said image is at least in part a pixel based image”, the step is inherent because the display is combination of pixels therefore, the combination of pixel images is the image itself.

59. Claim 68.

As per claim 68, “wherein a wholly opaque object in a particular region acts to eliminate one or more operations contributing to at least one other object constituting said particular region, wherein said at least one other object is obscured by said wholly opaque object in a space in which said outlines are defined”, Politis illustrated in Fig. 3-4.

60. Claim 123.

As per claim 123, "A method of creating an image, said image to be formed by compositing at least a plurality of graphical objects according to a hierarchical structure representing a compositing expression for said image, said hierarchical structure including a plurality of nodes, said method comprising the steps determining an active region for each sub-expression of said compositing expression, said active region representing a smallest region in which a result of said sub expression is classified as non-transparent; determining a further region for each sub-expression of said compositing expression, said further region representing an intersection of all active regions associated with further sub-expressions containing said sub-expression; determining an effective region for each of said nodes, said effective region being dependent on at least one characteristic of an active region associated with an operand of said node and a further region associated with said node, wherein each said

effective region has a corresponding rendering operation; and applying said corresponding rendering operations substantially to said effective regions to create said image”, Politis illustrated in Fig. 16-17 that the first portion of the image to be rendered in the above statements will be the graphical element corresponding to the letter T 20. This rendering will occur on a page 21 and will only occur in a predefined space or "bounding box" 22 which is the only portion of the scan converted portion of T which is to be laid down on the page 21. The next statement 7 combines the current page image with the graphical element corresponding to the letter E 24. Again, this letter by itself has a predetermined bounding box 25. Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the code generation phase of a compiler. And also Politis disclosed in Fig. 23 that the compositing process for a portion of an expression tree 65. This portion of the expression tree 65 is compiled to the corresponding list of machine instructions 66 (col. 16, lines 9-42). Politis illustrated in Fig. 24 that the process of clipping rather than compositing when the right hand operand is an opaque object (col. 16, lines 9-42). Politis illustrated in Table 1, (col. 2, line 10-57) which for compositing image using compositing table.

61. Claim 124.

As per claim 124, “mapping said effective regions and said rendering operations into a compositing table comprising a plurality of levels, wherein each said level represents at least one rendering operation for rendering an object or parts thereof or represents an outline for clipping at least one other level; and compositing said image using said compositing table”, Politis illustrated in Fig. 23, that a first method of converting an expression tree to corresponding "intermediate level" instructions. Politis illustrated in Figs. 28-29 a push operation is added to the table.

62. Claim 125.

As per claim 125, "wherein said rendering operations include compositing and stack operations", Politis disclosed in (col. 9, lines 18-21) for each scan line, the expression tree for the output variable is traversed and rendering of each graphical element and compositing operators is performed as relevant to that scan line.

63. Claim 126.

As per claim 126, "A computer readable medium for storing a program for apparatus which processes graphical objects intended to form a raster pixel image, said processing comprising a method of creating an image, said image to be formed by compositing at least a plurality of graphical objects according to a hierarchical structure representing a compositing expression for said image, said hierarchical structure including a plurality of nodes, said program comprising: code for determining an active region for each sub-expression of said compositing expression, said active region representing a smallest region in which a result of said sub-expression is classified as non-transparent; code for determining a further region for each sub-expression of said compositing expression, said further region representing an intersection of all active regions associated with further sub-expressions containing said sub-expression; code for determining an effective region for each of said nodes, said effective region being dependent on at least one characteristic of an active region associated with an operand of said node and a further region associated with said node, wherein each of said effective regions has a corresponding rendering operation; and code for applying said corresponding rendering operations substantially to said effective regions to create said image", Politis illustrated in Fig. 16-17 that the first portion of the image to be rendered in the above statements will be the graphical element corresponding to the letter T 20. This rendering will occur on a page 21 and will only occur in a predefined space or "bounding box" 22 which is the only portion of the scan converted portion of T which is to be laid down on the page 21. The next statement 7 combines the current page image with the graphical element corresponding to the letter E 24. Again, this letter by itself has a predetermined bounding box 25. Politis disclosed in (col. 9, lines 30-36) the initial expression tree can be likened to a compiler's parse tree, the creation of the render list (active area) can be likened to the

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code generation phase of a compiler. And also Politis disclosed in Fig. 23 that the compositing process for a portion of an expression tree 65. This portion of the expression tree 65 is compiled to the corresponding list of machine instructions 66 (col. 16, lines 9-42). Politis illustrated in Fig. 24 that the process of clipping rather than compositing when the right hand operand is an opaque object (col. 16, lines 9-42). Politis illustrated in Table 1, (col. 2, line 10-57) which for compositing image using compositing table.

64. Claim 127.

As per claim 127, "code for mapping said effective regions and said rendering operations into a compositing table comprising a plurality of levels, wherein each said level represents at least one rendering operation for rendering an object or parts thereof or represents an outline for clipping at least one other level; and code for compositing said image using said compositing table", Politis illustrated in Fig. 23, that a first method of converting an expression tree to corresponding "intermediate level" instructions. Politis illustrated in Figs. 28-29 a push operation is added to the table.

65. Claim 128.

As per claim 128, "wherein said rendering operations include compositing and stack operations", Politis disclosed in (col. 9, lines 18-21) for each scan line, the expression tree for the output variable is traversed and rendering of each graphical element and compositing operators is performed as relevant to that scan line.

Drawings

Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 8, 37, 124 and 127 the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

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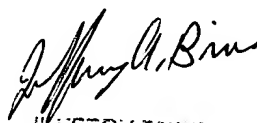
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8705 for regular communications and 703-746-8705 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid Amini
December 13, 2002


JEFFERY BRIER
PRIMARY EXAMINER